

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 310.1040							
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed name _____		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Application Number 10/501,225</td> <td style="width: 50%; padding: 5px;">Filed 2005-02-04</td> </tr> <tr> <td colspan="2" style="padding: 5px;">First Named Inventor Linden, J.</td> </tr> <tr> <td style="padding: 5px;">Art Unit 1715</td> <td style="padding: 5px;">Examiner Lightfoot, E.</td> </tr> </table>		Application Number 10/501,225	Filed 2005-02-04	First Named Inventor Linden, J.		Art Unit 1715	Examiner Lightfoot, E.
Application Number 10/501,225	Filed 2005-02-04								
First Named Inventor Linden, J.									
Art Unit 1715	Examiner Lightfoot, E.								
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>									
<p>I am the</p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> applicant/inventor <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record Registration number 48,265 <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____ </td> <td style="width: 50%; vertical-align: top;"> /Silvia Salvadori/ Signature _____ Silvia Salvadori Typed or printed name _____ 646-783-6758 Telephone number _____ December 16, 2010 Date _____ </td> </tr> </table>				<input type="checkbox"/> applicant/inventor <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record Registration number 48,265 <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	/Silvia Salvadori/ Signature _____ Silvia Salvadori Typed or printed name _____ 646-783-6758 Telephone number _____ December 16, 2010 Date _____				
<input type="checkbox"/> applicant/inventor <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) <input checked="" type="checkbox"/> attorney or agent of record Registration number 48,265 <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	/Silvia Salvadori/ Signature _____ Silvia Salvadori Typed or printed name _____ 646-783-6758 Telephone number _____ December 16, 2010 Date _____								
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.									
<input checked="" type="checkbox"/> *Total of 1 forms are submitted.									

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-6199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2 A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4 A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5 A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6 A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7 A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8 A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9 A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: LINDEN, *et al.* Confirmation No. 3797
Serial No.: 10/501,225
Art Unit: 1792
Examiner: TSOY, Elena
Filed: February 4, 2005
For: **METHOD FOR DEPOSITING
INORGANIC/ORGANIC FILMS**

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Pre-Appeal Brief

Sir:

Applicants submit this Pre-Appeal Brief, together with a Notice of Appeal in the above-identified application.

REMARKS

Claims 1, 3-5, 8-10, 12, 17-22 and 34-35 are the subject of Applicants' appeal. The presently claimed invention is directed to:

A method for applying a hybrid coating to a substrate, which coating comprises an inorganic and an organic component and which inorganic component comprises nanoparticles, wherein precursors for said organic and inorganic component are activated in two or more separate plasma sources for plasma activated deposition of a chemical vapor phase, wherein said activated precursors are combined before they are deposited on the substrate from the chemical vapor phase for forming the coating, and wherein the inorganic component is generated in a high electron density high-frequency plasma and wherein the high electron density high frequency plasma is pulsed.

(*e.g.*, page 2, lines 20-27 and page 14, lines 18-20).

The Examiner has maintained the 35 U.S.C. § 103(a) rejection of claims 1, 3-5, 8-10, 12, 17-22 and 34-35 over Yamada et al (U.S. Patent No. 5,024,927, hereinafter "Yamada") in view of Saito et al (U.S. Patent No. 5,021,114, hereinafter "Saito") and further in view of Otto et al (U.S. Patent No. 5,643,638, hereinafter "Otto").

Applicants respectfully traverse.

As submitted in the arguments presented in Applicants' response of December 30, 2009 from page 7 line 20 to page 8 line 21 and as admitted by the Examiner in the Non-Final Office Action of February 5, 2010 (*e.g.*, page 4 paragraph 6), neither Yamada or Saito teaches pulsed plasma.

Otto only provides for a plasma-chemical-vapor deposition ("CVD") method for producing a gradient layer by changing at least one of the plasma parameters, such as pulse amplitude, pulse duration and/or pulse interval during the process (*e.g.*, col. 1, lines 5-8). Further, Otto describes that using the plasma pulsed CVD method, it is possible to deposit layers of different composition on the substrate (*e.g.*, col. 3, lines 27-29). Thus, a suitable selection of

the pulse interval, for example, assures that the gas composition is always the same for each pulse by permitting a clean separation of the exhaust gas from the fresh gas (*e.g.*, col. 3, lines 31-34).

Applicants respectfully submit that for the following reasons the combination of Yamada with Saito and Otto does not render obvious the claimed subject matter.

As an initial matter there is no motivation to combine the teaching of Yamada and Saito with the teaching of Otto. Obviousness can be established by combining or modifying the teachings of the prior art to product the claimed invention where there is some teaching, suggestion or motivation to do so. *In re Kahn*, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006). Yamada describes an information recording medium and a (one) recording layer formed thereon, while Saito describes a plasma treatment method capable of forming a film of high quality uniformly on a substrate (*e.g.*, col. 2, lines 61-65).

On the other hand, Otto describes a method for producing a gradient layer, i.e., a layer of different composition, generated in the direction of the layer growth. In other words, Otto describes a method for depositing elementary layers (single layers) of different composition. These elementary layers are deposited in a targeted manner pulse for pulse by appropriate selection of the pulse amplitude (*e.g.*, col. 3, lines 26-30). Thus Otto's method must allow for constant modifications of at least one plasma power parameter.

Yamada and Saito, on the other hand, provide no motivation for using a pulsed plasma method to practice their invention because they do not describe methods to apply gradient layers or layers of different compositions. On the contrary, the methods described therein refers to the deposition of one single layer only and one skilled in the art would find inefficient and unnecessary to constantly change at least one plasma power parameter.

Further, the prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success. *Ex parte Blanc*, 13 USPQ2d 1383 (Bd. Pat. App. & Inter. 1989). Unlike in *Ex parte Blanc*, a person skilled in the art cannot even predict whether the methods described by Yamada or Saito would work with a pulsed plasma. Thus, a person skilled in the art would not combine the teachings of the combination of the cited references and would not find obvious the presently claimed subject matter.

Moreover, it is settled law that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art. *KSR International Co. v. Teleflex Inc.*, 550 U.S. _____, _____, 82 USPQ2d 1385, 1396 (2007). Thus, just because Yamada, Saito and Otto could be combined, it does not render the presently claimed subject matter obvious because, for the reasons set forth above, the result of the combination is not predictable to one of ordinary skill in the art.

Further a combination of known elements would have been *prima facie* obvious if an ordinarily skilled artisan would have recognized an apparent reason to combine those elements and would have known how to do so. *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335 (Fed. Cir. 2009). Unlike in *Ecolab*, an ordinarily skilled artisan cannot find an apparent reason to combine Yamada, Saito and Otto. As set forth above, Yamada and Saito describe a uniform layer of film, while Otto describes gradient layers to be applied on a substrate. Accordingly, a person skilled in the art would not be able to find an apparent reason to combine the teachings of these references. Furthermore, a person skilled in the art would have to perform undue experimentation in order to apply the pulsed plasma described in Otto to the methods of Yamada

or Saito. In other words, a person skilled in the art would have to find the correct pulsed plasma parameters applicable to the methods described by Yamada and/or Saito.

Thus, Applicants assert that for the reasons set forth above, the teachings of the cited references cannot be modified and combined to produce the claimed invention without the help of impermissible hindsight. *W.L. Gore & Associates*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

Accordingly, for all of these reasons, the references cannot be combined as proposed by the Examiner. Therefore, Applicants respectfully submit that the Examiner's rejection is untenable and should be overturned.

Conclusion

For the foregoing reasons, it is respectfully submitted that this application is in condition for an allowance and reconsideration and allowance are respectfully requested.

Should any extension of time of fees be necessary in order to maintain this Application in pending condition, the Director is hereby authorized to debit or credit such sum to Deposit Account No. 02-2275.

Date: December 16, 2010

Respectfully submitted,

LUCAS & MERCANTI, LLP

By: /Silvia Salvadori/

Silvia Salvadori Esq. Reg. No. 48,265

LUCAS & MERCANTI, LLP

475 Park Avenue South

New York, New York 10016

Tel: 646-783-6758

Fax: 212-661-8002